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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/708,330

02/24/2004

Yang-En Wu

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11/15/2005

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION
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MERRIFIELD, VA 22116

EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 11/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--|-----------------------------|--|
| Office Action Summary | Application No. 10/708,330 | Applicant(s) WU, YANG-EN | |
| | Examiner (Nancy) Thanh-Nhan P. Nguyen | Art Unit 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-16 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 24 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to Amendment dated 8/31/2005.

Claims 1-16 are pending for the examination.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the pixel electrodes (as claimed in claim 3) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1-4, 6-8, 9-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodate U.S. Patent No. 5,748,266 in view of Rho et al U.S. Patent No. 6,862,050.

Referring to claim 9, Kodate discloses a liquid crystal display comprising: a lower substrate (12) having a display area and a non-display area on an upper surface thereof, the lower substrate comprising: a plurality of scan lines (24) and a plurality of data lines (26), wherein the data lines are arranged perpendicular to the scan lines to form a pixel matrix in the display area, the pixel matrix comprising a plurality of pixels (10); a plurality of common electrodes (28) for transmitting a common voltage; and a plurality of common electrode pads electrically connected to the common electrodes, the common electrode pads and the common electrodes are positioned at a same plane on the lower substrate; an upper substrate (72) positioned on the lower substrate oppositely, the upper substrate comprising: a plurality of spacers (78) positioned on a bottom surface of the upper substrate for supporting a space between the upper substrate and the lower substrate, wherein each of the spacers corresponds to one of the common electrode pads of the lower substrate; and a conductive material layer (30) positioned on the bottom surface of the upper substrate covering the spacers, wherein

the conductive material layer covering the spacers is connected to each of the common electrode pads corresponding to each of the spacers; and a plurality of liquid crystal molecules (in liquid crystal layer 34) filled in the space between the upper substrate and the lower substrate, [see figs. 6, 8 & 9].

Kodate lacks disclosure of the spacers are photo spacers.

Rho et al discloses the spacers are photo spacers for the benefit of being able to place at the desired position and having uniform thickness, [see col. 8, lines 37-40]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to employ photo spacers for the benefit of being able to place at the desired position and having uniform thickness.

Referring to claim 10, Kodate discloses the lower substrate (12) further comprises a plurality of TFTs (16) positioned on each intersection of the scan lines and the data lines as switching elements of the pixels, [see figs. 6, 8 & 9].

Referring to claim 11, Kodate discloses a plurality of pixel electrodes (10) positioned in the pixels and electrically connected to the TFTs, [see figs. 6, 8 & 9].

Referring to claim 12, Kodate discloses a plurality of color filters (32) positioned on the bottom surface of the upper substrate (72), wherein each of the color filters comprises a red color filter, a green color filter, and a blue color filter, [see fig. 8].

Referring to claim 14, Kodate discloses a polarizer (38) positioned on the upper surface of the upper substrate and a polarizer (38) positioned on the bottom surface of the lower substrate, [see fig. 8].

Referring to claim 15, Kodate discloses each of the pixels contains one of the photo spacers, [see fig. 8, and claim 1 rejection about “photo spacers”].

Referring to claim 16, Kodate discloses the conductive material layer (30) is a transparent ITO layer, [see col. 2, lines 1-3].

Claims 1-4 are met the discussion regarding claims 9-12 rejection above respectively. Further, even though Kodate lacks disclosure of forming a plurality of scan lines, a plurality of common electrodes, and a plurality of common electrode pads on an upper surface of the lower substrate simultaneously, it was obvious to one ordinary skill in the art to do form those elements simultaneously as for the benefit of reducing manufacturing process, and therefore achieving better product yield.

Claims 6-8 are met the discussion regarding claims 14-16 rejection above respectively.

Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodate in view of Rho et al as discussed above, and further in view of Miyazaki et al U.S. Patent Application Publication No. 2002/0171800.

Referring to claim 13, Kodate lacks disclosure of a plurality of color filters positioned on the upper surface of the lower substrate, wherein each of the color filters comprises a red color filter, a green color filter, and a blue color filter.

However, the language of the claim regarding the use as a color filter for color liquid crystal display is an intended use limitation, as evidenced by Miyazaki et al, [see fig. 22], and therefore does not patentably distinguish the invention.

Claim 5 is met the discussion regarding claim 13 rejection above

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

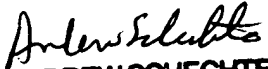
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supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

(Nancy) Thanh-Nhan P Nguyen
Examiner
Art Unit 2871
-- November 2, 2005 --




ANDREW SCHECHTER
PRIMARY EXAMINER